

HISTORIC AMERICAN ENGINEERING RECORD

HAER  
WIS,  
6-ALMA,  
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Mississippi River Nine-Foot Channel Project,  
Lock and Dam Number 4  
Alma, Wisconsin  
Wabasha County, Minnesota  
Buffalo County, Wisconsin

HAER No. WI-47

NOTE: Photographs WI-47-1 through WI-47-64 were taken by Clayton B. Fraser,  
photographer, August 1987

*The following negs are 4x5"*

- WI-47-1 OVERALL VIEW OF DAM AND LOCKS, LOOKING SOUTH, DOWNSTREAM, FROM  
UPSTREAM GUIDE WALL
- WI-47-2 OVERALL VIEW OF DAM, LOOKING SOUTH, DOWNSTREAM
- WI-47-3 DETAIL VIEW OF DAM, SHOWING ROLLER AND TANTER GATES, GATE PIERS,  
HEADHOUSES AND DAM BRIDGES, LOOKING SOUTH, DOWNSTREAM
- WI-47-4 DETAIL VIEW OF DAM, SHOWING TANTER GATES, GATE PIERS AND DAM  
BRIDGE, LOOKING EAST, DOWNSTREAM
- WI-47-5 DETAIL VIEW OF DAM, SHOWING TANTER GATES, GATE PIERS AND DAM  
BRIDGE, WITH ROLLER GATE HEADHOUSES AND LOCKS IN BACKGROUND,  
LOOKING NORTHEAST, UPSTREAM
- WI-47-6 DETAIL VIEW OF DAM, SHOWING ROLLER GATE HEADHOUSES AND DAM BRIDGE,  
WITH LOCKS IN FOREGROUND, LOOKING WEST
- WI-47-7 DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER GATES, LOOKING WEST,  
UPSTREAM
- WI-47-8 DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER GATE, ROLLER TRACK,  
CHAIN, GATE HEATER AND DAM BRIDGE, LOOKING WEST
- WI-47-9 DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER TRACK, LOOKING SOUTH
- WI-47-10 DETAIL VIEW OF ROLLER GATE, SHOWING GATE FLANGE AND TUBE, ROLLER  
TRACK AND CHAIN, LOOKING EAST
- WI-47-11 INTERIOR VIEW OF HEADHOUSE, SHOWING ROLLER GATE LIFTING MACHINERY,  
LOOKING SOUTHEAST
- WI-47-12 INTERIOR VIEW OF HEADHOUSE, SHOWING ROLLER GATE GAUGE AND WHEEL  
GEAR, LOOKING EAST

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- WI-47-13    DETAIL VIEW OF TAINTER GATE, SHOWING GATES, GATE ARMS, PIERS AND  
DAM BRIDGE, LOOKING NORTHEAST
- WI-47-14    DETAIL VIEW OF TAINTER GATE, SHOWING GATE, PIER AND DAM BRIDGE,  
LOOKING EAST
- WI-47-15    DETAIL VIEW OF TAINTER GATE, SHOWING GATE PIER, SWITCH AND CHAIN,  
LOOKING NORTHEAST
- WI-47-16    DETAIL VIEW OF TAINTER GATE, SHOWING GATE ARM, PIER, TRUNNION PIN  
AND GATE GAUGE, LOOKING EAST
- WI-47-17    DETAIL VIEW OF TAINTER GATE, SHOWING TRUNNION PIN, LOOKING NORTHEAST
- WI-47-18    VIEW OF MOVABLE CRANE ON DAM BRIDGE, WITH ROLLER GATE HEADHOUSE AT  
LEFT, LOOKING SOUTH
- WI-47-19    VIEW OF TAINTER GATE HOIST CAR ON DAM BRIDGE, LOOKING WEST
- WI-47-20    INTERIOR VIEW OF TAINTER CAR HOIST CAR, LOOKING EAST
- WI-47-21    VIEW OF BULKHEAD HOIST CAR, LOOKING WEST
- WI-47-22    INTERIOR VIEW OF BULKHEAD HOIST CAR, LOOKING WEST
- WI-47-23    INTERIOR VIEW OF BULKHEAD HOIST CAR, LOOKING WEST
- WI-47-24    VIEW OF FLATCAR ON DAM BRIDGE, LOOKING WEST
- WI-47-25    VIEW OF ROLLER GATE BULKHEADS, WITH BULKHEAD CARS AND TRACKS IN  
STORAGE YARD, WITH DAM BRIDGE OVERHEAD, LOOKING EAST
- WI-47-26    VIEW OF TAINTER GATE BULKHEADS, WITH BULKHEAD CARS AND TRACKS IN  
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- WI-47-27    OVERALL VIEW OF EARTH DIKE, LOOKING WEST
- WI-47-28    OVERALL VIEW OF EARTH DIKE, LOOKING WEST
- WI-47-29    INTERIOR VIEW OF MAIN LOCK, LOOKING SOUTH, DOWNSTREAM
- WI-47-30    INTERIOR VIEW OF AUXILIARY LOCK, LOOKING NORTH, UPSTREAM
- WI-47-31    INTERIOR VIEW OF AUXILIARY LOCK, WITH DAM ABUTMENT IN BACKGROUND,  
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WI-47-32 VIEW OF UPSTREAM GUIDE WALL OF MAIN LOCK, LOOKING NORTHEAST

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WI-47-34 VIEW OF MAIN LOCK INTERIOR GUIDE WALL, SHOWING TILE GAUGE, LOOKING WEST

WI-47-35 VIEW OF MAIN LOCK UPSTREAM MITER GATE, LOOKING NORTHWEST

WI-47-36 VIEW OF MAIN LOCK UPSTREAM MITER GATE, SHOWING PIVOT ARM, LOOKING SOUTHWEST

WI-47-37 VIEW OF AUXILIARY LOCK MITER GATE, WITH MAIN LOCK UPSTREAM MITER GATE AND UPSTREAM GUIDE WALL IN BACKGROUND, LOOKING NORTHEAST

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WI-47-39 VIEW OF MAIN LOCK TAINTER VALVE MACHINERY, LOOKING WEST

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WI-47-42 VIEW OF MAIN LOCK WINCH, LOOKING EAST

WI-47-43 VIEW OF BOAT LAUNCH, LOOKING SOUTH

WI-47-44 VIEW OF STAGE RECORDER ON UPSTREAM GUIDE WALL, LOOKING NORTHEAST

WI-47-45 VIEW OF UPSTREAM GUIDE WALL, SHOWING LIGHT STANDARD, LOOKING NORTH

WI-47-46 OVERALL VIEW OF ESPLANADE, LOOKING NORTH

WI-47-47 VIEW OF CENTRAL CONTROL STATION, LOOKING NORTHWEST

WI-47-48 VIEW OF CENTRAL CONTROL STATION, WITH MAIN LOCK IN FOREGROUND, LOOKING NORTHEAST

WI-47-49 VIEW OF MEMORIAL PLAQUE ON EAST WALL OF CENTRAL CONTROL STATION, LOOKING WEST

WI-47-50 INTERIOR VIEW OF CENTRAL CONTROL STATION, FIRST FLOOR, SHOWING STAFF ROOM, LOOKING WEST

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- WI-47-51 INTERIOR VIEW OF CENTRAL CONTROL STATION, WITH A DETAIL VIEW OF THE CENTRAL CONTROL PANEL, LOOKING NORTHEAST
- WI-47-52 INTERIOR VIEW OF CENTRAL CONTROL STATION, WITH A DETAIL VIEW OF THE CENTRAL CONTROL PANEL, LOOKING NORTHEAST
- WI-47-53 INTERIOR VIEW OF CENTRAL CONTROL STATION, BASEMENT, LOOKING NORTH
- WI-47-54 VIEW OF PEDESTRIAN OVERPASS OVER RAILROAD TRACKS, LOOKING NORTH
- WI-47-55 VIEW OF LOCKKEEPERS' HOUSES ON HILL OVERLOOKING LOCK AND DAM, LOOKING WEST
- WI-47-56 VIEW OF LOCKKEEPERS' HOUSES ON HILL OVERLOOKING LOCK AND DAM, LOOKING NORTHWEST
- WI-47-57 VIEW OF SOUTH LOCKKEEPER'S HOUSE, LOOKING SOUTHWEST
- WI-47-58 VIEW OF SOUTH LOCKKEEPER'S HOUSE, LOOKING SOUTH
- WI-47-59 VIEW OF SOUTH LOCKKEEPER'S HOUSE, LOOKING SOUTHEAST
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- WI-47-61 DETAIL VIEW OF SOUTH LOCKKEEPER'S HOUSE, WITH LOCK AND DAM IN BACKGROUND, LOOKING SOUTHWEST
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- WI-47-63 VIEW OF NORTH LOCKKEEPER'S HOUSE, LOOKING NORTH
- WI-47-64 VIEW OF NORTH LOCKKEEPER'S HOUSE, LOOKING NORTHWEST

The following are photocopies of photographs, courtesy of the U. S. Engineer Office, St. Paul, Minnesota. Original prints are located at Mississippi River Lock and Dam Number 4:

- WI-47-65 VIEW OF LOWER END OF MIDDLE WALL, August 31, 1933
- WI-47-66 PLAN VIEW, February 2, 1934
- WI-47-67 VIEW OF STEEL FORM FOR PIER FOUNDATIONS, March 16, 1934
- WI-47-68 VIEW OF PIER FORMS, May 2, 1934

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- WI-47-69 GENERAL VIEW OF COFFERDAM NO. 3, LOOKING NORTHEAST, September 18, 1934
- WI-47-70 GENERAL VIEW OF COFFERDAM NO. 3, LOOKING SOUTHWEST, November 20, 1934
- WI-47-71 GENERAL VIEW, April 30, 1935
- WI-47-72 GENERAL VIEW, date unknown

The following are photocopies of original construction drawings. Original prints are in the possession of the U. S. Army Corps of Engineers, St. Paul District, St. Paul, Minnesota. The photographer is unknown. *(neg format 8" x 7")*

- WI-47-73 LOCK - INDEX (ML-4-0/1-FS), March 1937
- WI-47-74 DAM - INDEX (ML-4-0/2-FS), February 1937
- WI-47-75 DAM - SITE MAP (ML-4-10/13-FS), February 1933
- WI-47-76 LOCK - GENERAL PLAN (ML-4-20/1-FS), June 1932
- WI-47-77 ESPLANADE & PARKING AREA - PROJECT LOCATION (ML-4-38/1-FS), June 1937
- WI-47-78 ESPLANADE & PARKING AREA - ESPLANADES PLANS & DETAILS (ML-4-38/5-FS), June 1937
- WI-47-79 ESPLANADE & PARKING AREA - LANDSCAPING (ML-4-38/8-FS), June 1937
- WI-47-80 ESPLANADE & PARKING AREA - LANDSCAPING (ML-4-38/9-FS), June 1937
- WI-47-81 ESPLANADE & PARKING AREA - FINISHED GRADING - LOCKKEEPERS' DWELLINGS (ML-4-38/10-FS), June 1937
- WI-47-82 DAM - GENERAL PLAN (ML-4-40/1-FS), June 1933
- WI-47-83 DAM - SECTION AND ELEVATION AT ROLLER GATE PIER (ML-4-40/2-FS), June 1933
- WI-47-84 DAM - SECTION AT TAINTER GATE PIER (ML-4-40/3-FS), June 1933
- WI-47-85 DAM - STEEL PILING LAYOUT (ML-4-40/4-FS), February 1937
- WI-47-86 DAM - PILE SPACING, PIERS 6 TO 21 (ML-4-40/6-FS), February 1937

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- WI-47-87 DAM - OPERATING HOUSE - PLAN & ELEVATION (ML-4-41/1-FS), June 1933
- WI-47-88 DAM - OPERATING HOUSE - STEEL REINFORCING (ML-4-41/2-FS), June 1933
- WI-47-89 DAM - SERVICE BRIDGE - SPANS OVER ROLLER GATES (ML-4-53/2-FS),  
June 1933
- WI-47-90 DAM - SERVICE BRIDGE - SPANS OVER TANTER GATES (ML-4-53/6-FS),  
June 1933
- WI-47-91 DAM - TANTER GATE - POSITION INDICATOR (ML-4-55/1A), September 1936
- WI-47-92 DAM - TANTER GATE OPERATING MACHINERY - TRAVELING HOIST, LAKE SIDE  
TYPE ASSEMBLY (ML-4&5-55/2-FS), October 1934
- WI-47-93 DAM - TANTER GATE OPERATING MACHINERY - TRAVELING HOIST, LAKE SIDE  
TYPE CAB (ML-4&5-55/3-FS), October 1934
- WI-47-94 DAM - TANTER GATE OPERATING MACHINERY - METHOD OF ATTACHING  
LIFTING CHAINS TO DRUMS OF HOIST - LAKE SIDE TYPE (ML-4&5-55/34-FS),  
February 1938
- WI-47-95 DAM - TANTER GATE OPERATING MACHINERY EQUALIZER, LIFTING CHAIN &  
DETAILS (ML-4-55/54-FS), June 1938
- WI-47-96 ELECTRIC HOIST CAR - TANTER GATE OPERATING MACHINERY ASSEMBLY  
(ML-4&5-55/62-FS), May 1937
- WI-47-97 DAM - TANTER GATE OPERATING MACHINERY - TRAVELING HOIST - AMERICAN  
TYPE ASSEMBLY (ML-4-55/111-FS), February 1938
- WI-47-98 DAM - TANTER GATE OPERATING MACHINERY - TRAVELING HOIST - AMERICAN  
TYPE ASSEMBLY (ML-4&5-55/112-FS), March 1934
- WI-47-99 DAM - TANTER GATE OPERATING MACHINERY - TRAVELING HOIST - AMERICAN  
TYPE CAB (ML-4&5-55/113-FS), March 1934
- WI-47-100 DAM - TANTER GATE OPERATING MACHINERY - AMERICAN HOIST CAR  
ELECTRIFICATION ASSEMBLY (ML-4-55/146), January 1958
- WI-47-101 DAM - LOCOMOTIVE CRANE - TYPE A - GENERAL DRAWING (ML-4&5-57/1-FS),  
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- WI-47-102 DAM - EMERGENCY BULKHEAD - ROLLER GATES - PLAN & ELEVATION  
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- WI-47-103 DAM - EMERGENCY BULKHEAD - TAINTER GATES - PLAN & ELEVATION  
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- WI-47-104 FOOTBRIDGE - GENERAL PLAN AND FOOTING DETAILS (ML-4-69/1-FS),  
February 1936
- WI-47-105 POWERHOUSE - ELEVATIONS & SECTIONS (ML-4-70/1-FS), June 1932
- WI-47-106 POWERHOUSE - PLAN-BASEMENT, FIRST FLOOR AND ROOF (ML-4-70/1-FS),  
June 1932
- WI-47-107 POWERHOUSE - DOORS, WINDOWS AND TYPICAL WALL SECTIONS  
(ML-4-70/6-FS), June 1932
- WI-47-108 LOCK - ELECTRICAL SYSTEM - CENTRAL CONTROL STATION - GENERAL  
ARRANGEMENT OF MACHINERY (ML-4-71/1-FS), January 1934
- WI-47-109 STOREHOUSE - LOCATION PLAN (ML-4-72/1-FS), October 1935
- WI-47-110 STOREHOUSE - PLANS, ELEVATIONS & ARCHITECTURAL DETAILS  
(ML-4-72/2-FS), October 1935
- WI-47-111 LOCKKEEPERS' DWELLINGS - PLANS (ML-4-74/3-FS), February 1937
- WI-47-112 LOCKKEEPERS' DWELLINGS - PLANS (ML-4-74/4-FS), February 1937
- WI-47-113 LOCKKEEPERS' DWELLINGS - ELEVATIONS (ML-4-74/6-FS), February 1937
- WI-47-114 LOCKKEEPERS' DWELLINGS - ELEVATIONS (ML-4-74/6-FS), February 1937
- WI-47-115 LOCKKEEPERS' DWELLINGS - WALL SECTIONS (ML-4-74/9-FS), February 1937
- WI-47-116 LOCKKEEPERS' DWELLINGS - PORCH DETAILS (ML-4-74/10-FS),  
February 1937
- WI-47-117 LOCKKEEPERS' DWELLINGS - MISCELLANEOUS DETAILS (ML-4-74/11-FS),  
February 1937
- WI-47-118 LOCKKEEPERS' DWELLINGS - MILLWORK DETAILS (ML-4-74/12-FS),  
February 1937

NOTE: Negatives are 5" x 7" format.